

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application. Claims 1-19 have been CANCELED.

5    **Listing of Claims:**

1-19. (CANCELED)

20.    (PREVIOUSLY PRESENTED) Integrated animal surveillance system

10    using fixed and mobile processor communication, the system comprising:

      a processor coupled to a packet-switched digital network, the processor accessing a database including a representation of an identity and a location of at least one remote animal;

15    a mobile communications unit physically associated with a remote animal for monitoring a sensed condition or location according to a GPS device of such remote animal, the mobile communications unit communicating wirelessly with the processor through the digital network; and

      a first detector coupled to the digital network and selected by the processor for observing the remote animal automatically via real-time video or infra-red imaging when such remote animal is determined by the processor to be located within a first observation range of the selected first detector, such first detector being coupled to an animal movement module or software for automatically enabling hand-off effectively of the observation to another detector in a neighboring or next-closest detector or site for

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observing the remote animal movement when such observation is triggered or activated by such animal movement.

21. (PREVIOUSLY PRESENTED) The system of Claim 20 further comprising:

a second detector coupled to the digital network and selected by the processor for observing the remote animal when such remote animal is determined by the processor to have moved and subsequently located within a second observation range of selected second detector.

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22. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:  
a position signal being generated by the mobile communications unit coupled to  
the remote animal when such remote animal is moveable within an observable range, an  
observation signal being generated by the first detector uncoupled to such remote animal  
in the observable range.

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23. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:  
the mobile communications unit comprises an accelerometer.

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24. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:  
a software agent associated with such remote animal accesses a database.

25. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:

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a portable identifier associated with such remote animal is used for communication therewith.

26. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:  
5 an object representation of such remote animal comprises an object name, an object identifier, an object group, an object query, an object condition, an object status, an object location, an object time, an object error, or an object image, video, or audio broadcast signal.

10 27. (PREVIOUSLY PRESENTED) The system of Claim 22 wherein:  
the observable range is modified according to a rule set.

28. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:  
the remote animal is monitored temporarily using an extrapolated or last-stored  
15 positional or visual signal.

29. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:  
the remote animal is authenticated according to a voice pattern or a magnetic or smart-card signal.

20 30. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:  
an electronic file comprising a recorded or live voice or music transmission is provided to the remote animal.

31. (PREVIOUSLY PRESENTED) In an integrated animal surveillance system using a plurality of processors, apparatus comprising:

5 a mobile communications unit physically associated with a remote animal for monitoring at least one sensed condition or location according to a GPS device of the remote animal, the mobile communications unit communicating wirelessly with a processor through a digital network; and

10 a first detector coupled to the digital network and selected by the processor for observing the remote animal automatically via real-time video or infra-red imaging when such remote animal is determined by the processor to be located within a first observation range of the selected first detector, the processor accessing a database including a representation of an identity and a location of the remote animal, such first detector being coupled to an animal movement module or software for automatically enabling hand-off effectively of the observation to another detector in a neighboring or next-closest detector

15 or site for observing the remote animal movement when such observation is triggered or activated by such animal movement.

32. (PREVIOUSLY PRESENTED) The apparatus of Claim 31 further comprising:

20 a second detector coupled to the digital network and selected by the processor for observing the remote animal when such remote animal is determined by the processor to have moved and subsequently located within a second observation range of the selected second detector.

33. (PREVIOUSLY PRESENTED) In an integrated animal surveillance system comprising fixed and mobile processors, a communication method comprising the steps of:

- 5       accessing by a processor coupled to a packet-switched digital network database including a representation of an identity and a location of at least one remote animal;
- monitoring by a mobile communications unit physically associated with a remote animal a sensed condition or location according to a GPS device of such animal;
- communicating by the mobile communications unit with the processor through
- 10      the digital network; and
- observing by a first detector coupled to the digital network and selected by the processor the remote animal automatically via real-time video or infra-red imaging when such remote animal is determined by the processor to be located within a first observation range of the selected first detector, such first detector being coupled to an animal movement module or software for automatically enabling hand-off effectively of the observation to another detector in a neighboring or next-closest detector or site for observing the remote animal movement when such observation is triggered or activated by such animal movement.
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20       34. (PREVIOUSLY PRESENTED) The method of Claim 33 further comprising the step of:

      observing by a second detector coupled to the digital network and selected by the processor the remote animal when such remote animal is determined by the processor to

have moved and subsequently located within a second observation range of the selected second detector.

35. (PREVIOUSLY PRESENTED) The system of Claim 20 wherein:  
5 the processor confirms the remote animal identity by processing a visual image of the remote animal using adaptive or neural learning software to recognize such animal automatically.

36. (PREVIOUSLY PRESENTED) The apparatus of Claim 31 wherein:  
10 the processor confirms the remote animal identity by processing a visual image of the remote animal using adaptive or neural learning software to recognize such animal automatically.

37. (PREVIOUSLY PRESENTED) The method of Claim 33 wherein:  
15 the processor confirms the remote animal identity by processing a visual image of the remote animal using adaptive or neural learning software to recognize such animal automatically.